

Notice of Allowability	Application No.	Applicant(s)	
	10/777,066	TATAMIYA, HISASHI	
	Examiner	Art Unit	
	Pritham Prabhakher	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02/13/2004.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>05/12/2004</u> 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|---|--|

DETAILED ACTION

Allowable Subject Matter

Claims 1-20 are allowed.

The following is an examiner's statement of reasons for allowance:

*In regard to independent **Claim 1**, the prior art fails to teach or reasonably suggest, a digital camera comprising;*

a camera body;

a photographing optical system that forms a subject image;

a lighting unit including a light-source device that emits light in a predetermined direction; and

a liquid crystal display (LCD) panel that selectively transmits light emitted by said light-source device to display said subject image;

wherein the camera body has a first space to attach said light-source device in front of said LCD panel and a second space to attach said light-source device at the rear of said LCD panel, and said LCD panel transmits light so as to display a non-inverted image when viewed from the rear side of said digital camera.

Regarding **Claims 2-11**, these claims are allowed as being dependent from allowed independent claim 1.

*In regard to independent **Claim 12**, the prior art fails to teach or reasonably suggest a digital camera body comprising;*

a photographing optical system that forms a subject image; and

an LCD panel that selectively transmits light emitted by a lighting unit including a light-source device to display said subject image;

wherein said camera body has a first space and a second space to attach said light-source device at the front side of said LCD panel or at the rear of said LCD panel, and said lighting unit is detachably attached in one of said first space and said second space for said light-source device so as to be arranged in one of said first space and said second space selectively, and said LCD panel transmits light-emitted by said lighting unit to display a non-inverted image when viewed from the rear of said LCD panel.

Regarding **Claim 13**, this claim is allowed as being dependent from allowed independent claim 12.

*In regard to independent **Claim 14**, the prior art fails to teach or reasonably suggest a digital camera comprising;*

a photographing optical system that forms a subject image;

a lighting unit including a light-source device that emits light in a predetermined direction; and

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an LCD panel that selectively transmits light from said lighting unit to display said subject image, and that is arranged in a digital camera body so that a first panel surface faces a front side of said camera and a second panel surface located at the opposite side of said first panel surface, faces a rear side of said camera;

wherein said lighting unit is attached to said camera body so that said light-source device is selectively arranged at one of said first panel surface side and said second panel surface side, and said LCD panel transmits light to display a non-inverted image when viewed from the rear of said digital camera.

*Regarding independent **Claim 15**, the prior art fails to teach or reasonably suggest a digital camera body comprising;*

a photographing optical system that forms a subject image;

a lighting unit including a light-source device that emits light in a predetermined direction; and

an LCD panel that selectively transmits light from said lighting unit to display said subject image, and that is arranged so that a first panel surface faces a front direction of said camera and a second panel surface located at the opposite side of said first panel surface, faces in a rear direction of said camera;

wherein said lighting unit is detachably attached so that said light-source device is selectively arranged at one of said first panel surface side and said second panel surface side, and said LCD panel transmits light to display a non-inverted image when viewed from the rear of said digital camera.

Regarding **Claim 16**, this claim is allowed as being dependent from allowed independent claim 15.

*In regard to independent **Claim 17**, the prior art fails to teach or reasonably suggest a photographing display apparatus comprising;*

a light-source device that emits light;

a light modulator unit that has a first surface facing a first side which is a subject side and a second surface facing an opposite side of said first side, and that selectively transmits light emitted by said light-source device from said first surface to said second surface, or from said second surface to said first surface to display a subject image formed by a photographing optical system;

wherein said light-source device is selectively arranged in one of said first surface side and said second surface side, and said light modulator unit transmits light emitted by said light-source device to display a non-inverted image when viewed from said second side.

*In regard to independent **Claim 18**, the prior art fails to teach or reasonably suggest a method for displaying a photograph image comprising:*

emitting light in a predetermined direction;

arranging a light-source device for emitting light, selectively in one of a first side and a second side of a light modulator unit that has a first surface

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facing said first side which is a subject sideband a second surface facing said second side which is an opposite side of said first side, and that selectively transmits light emitted by said light-source device from said first surface to said second surface, or from said second surface to said first surface to display a subject image formed by a photographing optical system; and

transmitting light emitted by said light-source device to display a non-inverted image when viewed from said second side.

With regard to **Claim 19**, the prior art fails to teach or reasonably suggest a digital camera comprising;

a camera body;

a photographing optical system that forms a subject image;

a plate-shaped lighting unit including a light-source device that emits light in a predetermined direction; and

an LCD panel that selectively transmits light from said plate-shaped lighting unit to display said subject image;

wherein the camera body has a first space to attach said plate-shaped lighting unit in the front of said LCD panel and a second space to attach said plate-shaped lighting unit at the rear of said LCD panel, and said LCD panel transmits light from said plate-shaped lighting unit to display a non-inverted image when viewed from the rear side of said digital camera.

Regarding **Claim 20**, the prior art fails to teach or reasonably suggest a digital camera comprising;

a camera body;

a photographing optical system that forms a subject image; a

U-shaped lighting unit including a light-source device that emits light in a predetermined direction; and

an LCD panel that selectively transmits light from said U-shaped lighting unit to display said subject image;

wherein the camera body has a first space and a second space that are connected from a camera front side to a camera rear side, and said light-source device is formed in one of two bar-shaped members of said U-shaped lighting unit, and said U-shaped lighting unit is selectively and detachably attached to said first space and said second space that are connected so that said light-source device is arranged in said first space and said second space, and said LCD panel transmits light from said U-shaped lighting unit to display a non-inverted image when viewed from the rear side of said digital camera.

The following are the closest references found:

Nitta et al. (US Patent No.: 7113163B2) teach of an invention that includes a panel on which a plurality of pixels are located, a light-source for visualizing an image displayed on the plurality of pixels, a controlling circuit for controlling the light-source, and an image-signal tone characteristic controlling circuit. Moreover, the light-source

controlling circuit has a function of repeating a period. Here, the period includes a 1st time-period during which an electric current having a 1st intensity is fed to the light-source, and a 2nd time-period during which an electric current having a 2nd intensity differing from the 1st intensity is fed to the light-source. The light-source controlling circuit controls the 1st time-period and the 2nd time-period in accordance with display information. Also, in accordance with the display information as well, the tone characteristic controlling circuit is controlled so that the excellent contrast will be always available.

Makino et al. (US Patent No.: 7184018B2) disclose that *In a liquid crystal display device which is constructed by sealing a liquid crystal having spontaneous polarization in an active matrix panel including a coloring member and displays an image on a frame by frame basis by repeating a data writing process and a data erasing process for the active matrix panel, the frequency in the data writing process is set at least twice higher than a frame frequency and the data writing process and the data erasing process are completed within one frame time so that time taken for transmission of light through the coloring member is not more than a half of one frame time. The coloring member is in a non-light-transmitting state during a period of not shorter than a half of one frame, and the blurred outline section of a moving image is reduced.*

Nakayama et al. (US Patent No.: 7084902B1) teach of when an image is played back on a liquid crystal cell, an auxiliary lamp is turned on. In this way, a displayed image can easily be confirmed. If an image frame forward switch is not turned on after the auxiliary lamp is turned on, the auxiliary lamp is turned off. In this way, unnecessary

lighting of the auxiliary lamp can be prevented, and an amount of electric power consumed can be reduced.

Morikawa et al. (US Pub No.: 2004/0004667A1) disclose an image recording/replaying device, such as a video camera, has various operating switches which have enhanced operability so as to suit a mode of use. The image recording/replaying device includes an image display section (3) that is foldably, unfoldably, and rotatably supported at a body (2) internally incorporating a taking lens (4). The image recording-replaying device also includes a control switch (14) including an operating key (15) and a plurality of contacts disposed at end portions and an intersection of a cross-shaped portion of the operating key in correspondence with end portions and the central portion of the operating key, in which, by pressing any one of the end portions and the central portion of the operating key, the contact disposed in correspondence with the pressed portion is closed. The control switch further includes direction selection switches that are such that particular directions within a display screen of the image display section correspond to the directions of the positions of the four end portions of the operating key. The direction selection switches are such that the directions used within the display screen of the image display section and corresponding to the directions of the positions of the four end portions of the operating key are changed in accordance with a change in the orientation of the image display section resulting from rotation of the image display section.

Conclusion

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pritham Prabhakher whose telephone number is 571-270-1128. The examiner can normally be reached on M-F (7:30-5:00) Alt Friday's Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571)272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

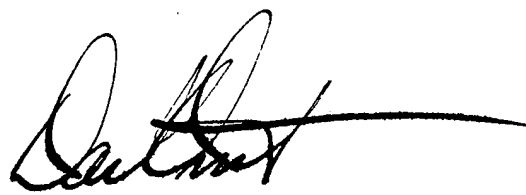
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Pritham David Prabhakher

Patent Examiner

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Pritham. D. Prabhakher

A handwritten signature in black ink, appearing to read "David Ometz", with a long horizontal stroke extending to the right.

DAVID OMETZ
SUPERVISORY PATENT EXAMINER